



Patent  
270/070

#4

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: LANGENFELD, John  
Title: BONE MORPHOGENETIC PROTEIN-2 IN THE TREATMENT AND  
DIAGNOSIS OF CANCER  
Serial No. 10/044,716  
Filing Date: January 11, 2002  
Art Unit: 1645  
Examiner: To Be Assigned

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**PETITION PURSUANT TO 37 C.F.R. 1.84(a)(2) FOR LEAVE TO  
INCLUDE COLOR DRAWINGS OR COLOR PHOTOGRAPHS IN THE  
SPECIFICATION OF A PATENT APPLICATION**

05/20/2002 BABRAHA1 00000089 10044716

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Sir: 130.00 DP

This is a petition pursuant to 37 C.F.R. 1.84(a)(2) for leave to include color photographs in a patent application. Figures 5, 10, 11, 13, and 14 of the above-referenced patent application are color images. Applicant respectfully submits that the color images are necessary for the following reasons.

Figure 5 depicts the results of an immunohistochemistry analysis which localized bone morphogenetic protein-2 (BMP-2) expression to the tumor cells. The best black and

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CERTIFICATE OF MAILING  
(37 C.F.R. §1.8a)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

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*May 14, 2002*  
Date of Deposit  
OC-110032.1

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*Melody K Gutierrez*  
Name of Person Mailing Paper  
*Melody K Gutierrez*  
Signature of Person Mailing Paper

white photocopy does not show the variations in the area and intensity of staining that can be observed in the color photograph.

Figure 10 shows that BMP-2 treatment enhances formation of blood vessels around a cancerous tumor. The color image is necessary because the tissue and the blood vessels within it are varying shades of pink, such that the black and white photocopy does not clearly show the extent of blood vessel formation.

Figure 13(C) shows migration of H7249 cells toward Affi-Blue agarose beads containing recombinant BMP-2, while figure 13(D) show that H7249 cells do not migrate toward Affi-Blue beads containing dilution buffer. The best black and white photocopy does not unambiguously show the location of the Affi-Blue bead, which appears blue in the color photograph. The other figures on sheet 13, (A) and (E), are line graphs containing two different sets of data. To help distinguish the two sets of data, one line is in red on each graph.

Figure 14 shows tumors from nude mice co-injected with Affi-blue agarose beads coated with 1) albumin, 2) recombinant human BMP-2, or 3) recombinant mouse noggin. The color photograph is necessary to better visualize the tumors, as in the black and white photocopy of the photograph, the tumors blend into the background.

In addition, Applicant requests that the patent application be amended as follows. On page 6, after the title "BRIEF DESCRIPTION OF THE FIGURES" and before paragraph 18, please insert the following paragraph:

The patent contains at least one drawing executed in color. Copies of this patent with color drawings will be provided by the Office upon request and payment of the necessary fee.

Three sets of color photographs and one black and white photocopy of each of the color photographs are transmitted with this petition. In addition, enclosed is Counsel's check in the amount of \$130.00 to cover the fees set forth in 37 CFR 1.17(i) required for this Petition. The Commissioner is authorized to charge any fee deficiencies related to this filing or credit any overpayment of fees to Counsel's Deposit Account No. 12-2475.

If there is any problem with this application and it appears that a telephone conference with counsel will helpfully advance prosecution, please telephone the undersigned at (213) 489-1600.

Respectfully submitted,

LYON & LYON LLP

Dated: May 14, 2002

By: 

Michael J. Wise  
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**22249**

PATENT TRADEMARK OFFICE

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